

Title (en)

METHODS OF PATTERNING A CONDUCTOR ON A SUBSTRATE

Title (de)

VERFAHREN ZUM STRUKTURIEREN EINES LEITERS AUF EINEM SUBSTRAT

Title (fr)

PROCÉDÉS DE FORMATION D UN MOTIF DE CONDUCTEUR SUR UN SUBSTRAT

Publication

**EP 2257969 A4 20120620 (EN)**

Application

**EP 09713944 A 20090226**

Priority

- US 2009035271 W 20090226
- US 3227308 P 20080228

Abstract (en)

[origin: US2009218310A1] A method of patterning a conductor on a substrate includes providing an inked elastomeric stamp inked with self-assembled monolayer-forming molecules and having a relief pattern with raised features. Then the raised features of the inked stamp contact a metal-coated visible light transparent substrate. Then the metal is etched to form an electrically conductive micropattern corresponding to the raised features of the inked stamp on the visible light transparent substrate.

IPC 8 full level

**H01L 21/027** (2006.01); **G03F 7/00** (2006.01)

CPC (source: EP US)

**B41M 5/52** (2013.01 - US); **B82Y 10/00** (2013.01 - EP US); **B82Y 40/00** (2013.01 - EP US); **C23F 1/02** (2013.01 - EP US); **C23F 1/30** (2013.01 - EP US); **G03F 7/0002** (2013.01 - EP US); **G06F 3/041** (2013.01 - US); **G06F 3/0445** (2019.04 - EP US); **H05K 1/0296** (2013.01 - US); **H05K 1/032** (2013.01 - US); **H05K 3/0079** (2013.01 - EP US); **H05K 3/061** (2013.01 - EP US); **G06F 2203/04103** (2013.01 - EP US); **G06F 2203/04112** (2013.01 - EP US); **H05K 2201/0108** (2013.01 - EP US); **H05K 2201/0133** (2013.01 - EP US); **H05K 2203/0108** (2013.01 - EP US); **H05K 2203/0537** (2013.01 - EP US); **Y10T 428/24802** (2015.01 - EP US)

Citation (search report)

- [A] US 2005003590 A1 20050106 - BLEES MARTIN HILLEBRAND [NL], et al
- [A] WO 2005114369 A2 20051201 - APPLE COMPUTER [US], et al
- [A] WO 0188998 A2 20011122 - 3M INNOVATIVE PROPERTIES CO [US]
- [Y] LOVE J C ET AL: "Self-assembled monolayers of thiolates on metals as a form of nanotechnology", CHEMICAL REVIEWS, AMERICAN CHEMICAL SOCIETY, US, vol. 105, no. 4, 13 April 2005 (2005-04-13), pages 1103 - 1169, XP002643726, ISSN: 0009-2665, [retrieved on 20050325], DOI: 10.1021/CR0300789
- [Y] MICHEL B ET AL: "PRINTING MEETS LITHOGRAPHY: SOFT APPROACHES TO HIGH-RESOLUTION PATTERNING", IBM JOURNAL OF RESEARCH AND DEVELOPMENT, INTERNATIONAL BUSINESS MACHINES CORPORATION, NEW YORK, NY, US, vol. 45, no. 5, 1 September 2001 (2001-09-01), pages 697 - 719, XP001188193, ISSN: 0018-8646
- [A] N. LENNHOF: "Laser Patterning for Touch Screen Manufacture", CONFERENCE ON LASERS AND ELECTRO-OPTICS/QUANTUM ELECTRONICS AND LASER SCIENCE AND PHOTONIC APPLICATIONS, SYSTEMS AND TECHNOLOGIES, TECHNICAL DIGEST, OPTICAL SOCIETY OF AMERICA PAPER PWE1, 26 May 2006 (2006-05-26), pages 1 - 3, XP008151626
- See references of WO 2009108771A2

Cited by

US11396610B2; US11185918B2; WO2017004704A1; US10125285B2; TWI719032B

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK TR

DOCDB simple family (publication)

**US 2009218310 A1 20090903; US 8425792 B2 20130423**; CN 102017071 A 20110413; CN 102017071 B 20131218; EP 2257969 A2 20101208; EP 2257969 A4 20120620; EP 2257969 B1 20171220; JP 2011517367 A 20110602; JP 2014131071 A 20140710; JP 2016154256 A 20160825; JP 6321716 B2 20180509; TW 200945445 A 20091101; TW I440094 B 20140601; US 2013277330 A1 20131024; US 2015086757 A1 20150326; US 2017024041 A1 20170126; US 8932475 B2 20150113; US 9487040 B2 20161108; WO 2009108771 A2 20090903; WO 2009108771 A3 20091022

DOCDB simple family (application)

**US 39320109 A 20090226**; CN 200980115075 A 20090226; EP 09713944 A 20090226; JP 2010548862 A 20090226; JP 2014036362 A 20140227; JP 2016084407 A 20160420; TW 98106538 A 20090227; US 2009035271 W 20090226; US 201313848162 A 20130321; US 201414560748 A 20141204; US 201615286723 A 20161006